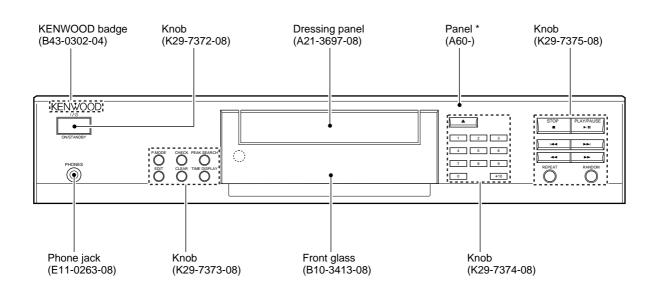
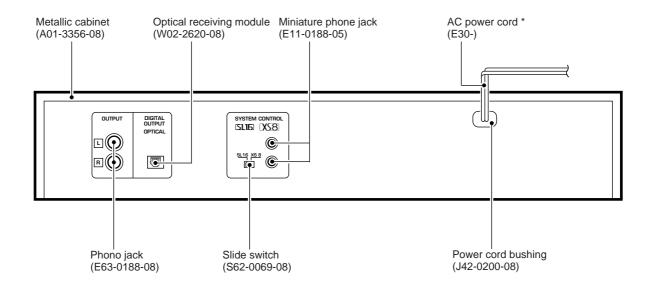
COMPACT DISC PLAYER

DPF-1010/1010E/2010/ 2010E/3010/3010E SERVICE MANUAL

KENWOOD

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Illust is DPF-3010.
* Refer to parts list on page 14.

In compliance with Federal Regulations, following are reproductions of labels on, or inside the product relating to laser product safety.

Refer to DP-3080MKII/3090 Service manual (B51-5349-00), if you require disassembly for repair.

KENWOOD-Corp. certifies this equipment conforms to DHHS Regulations No. 21 CFR 1040. 10, Chapter 1, Subchapter J.

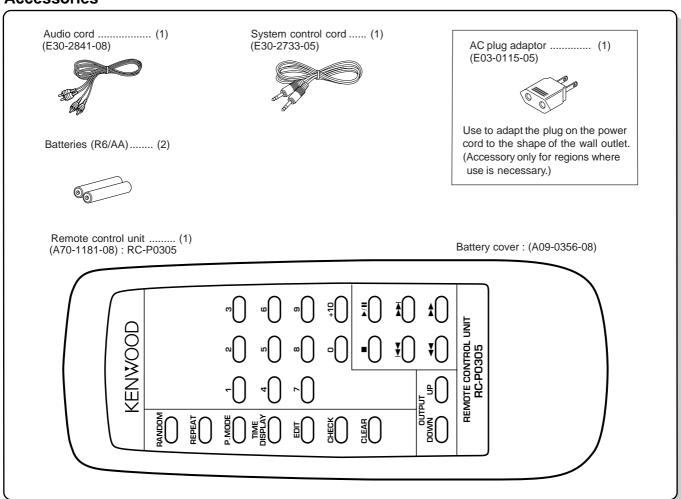
DANGER: Laser radiation when open and interlock defeated. AVOID DIRECT EXPOSURE TO BEAM.

CONTENTS / ACCESSORIES

Contents

CONTENTS/ACCESSORIES2	SCHEMATIC DIAGRAM7
CIRCUIT DESCRIPTION3	EXPLODED VIEW12
ADJUSTMENT4	PARTS LIST14
PC BOARD5	SPECIFICATIONSBack cover

Accessories



CIRCUIT DESCRIPTION

1. Microprocessor : CXP82324 (MAIN unit : IC601)

1-1 Pin description

Pin No.	Pin name	I/O	Description
1	GFS	I	NOT USED
2	RMC	I	REMOCON INPUT PORT
3-5	PE5~7	_	NOT USED
6	MUTE	0	DIGITAL MUTE (ON: "H") DPF-1010/2010 ONLY
7	MLEN	0	TC9423F LATCH CONTROL
8	MCK	0	TC9423F CLOCK CONTROL
9	SENS	I	SENSE INPUT FROM CXD2587Q
10	MDT	0	TC9423F DATA CONTROL
11	SQCK	0	CLOCK TO READ Q_DATA
12	SUBQ	I	Q_DATA INPUT PORT
13	PB7	0	NOT USED
14-17	KR0-KR3	I	KEY INPUT PORT
18	OPEN_M	0	OPEN MOTOR (ACTIVE "L")
19	CLOSE_M	0	CLOSE MOTOR (ACTIVE "L")
20	MON	0	SPINDLE MOTOR ON "H"
21	PC7	0	NOT USED
22	DATA	0	DATA OUT TO CXD2587Q
23	XLT	0	LATCH OUT TO CXD2587Q
24	CLK	0	CLOCK OUT TO CXD2587Q
25	FOK	I	FOCUS OK INPUT PORT
26	LDON	0	LASER OUTPUT (ON: "L")
27	A_MUTE	0	ANALOGUE MUTE (ON: "H")
28	XRST	0	IC RESET PORT
29	PA7	I	OPTION L : DPF-1010/2010 H : DPF-3010
30	RESET	_	(RESET)
31	XI	_	(XTAL1) 4.19 MHz
32	XO	_	(XTAL0) 4.19 MHz
33	Vss	_	(GND)
34-46	_	0	NOT USED
47-57	SEG11~SEG1	0	FL SEGMENT PORT (SEG11~SEG1) / KEY SCAN KS10~KS4 (48PIN~54PIN)
58-61	_	0	NOT USED
62-70	G9-G1	0	FL DIGIT PORT
71	Vfdp	_	FL DRIVER POWER (-26V)
72	Vdd	_	(+5V)
73	NC	_	CONNECTED TO Vdd
74	FED_SW	I	LIMIT SWITCH (ON: "L")
75	MODE_SW	I	8/16BIT (L:8BIT, H:16BIT)
76	S_DATA	I/O	SYSTEM SERIAL DATA
77	S_BUSY	I/O	SYSTEM SERIAL BUSY
78	SCCR	I	SCOR FROM CXD2587
79	OP_SW	I	OPEN SWITCH (ON: "L")
80	CL_SW	I	CLOSE SWITCH (ON: "L")

2. Key matrix

	KS10 (48pin)	KS9 (49pin)	KS8 (50pin)	KS7 (51pin)	KS6 (52pin)	KS5 (53pin)	KS4 (54pin)
KR0 (14pin)	2	4	3	_	6	5	1
KR1 (15pin)	8	10	REPEAT	_	7	0	9
KR2 (16pin)	I ◀◀	▶II	STOP	RANDOM	>>	▶▶	←
KR3 (17pin)	EDIT	CLEAR	TIME	_	PEAK SEARCH	CHECK	PROGRAM

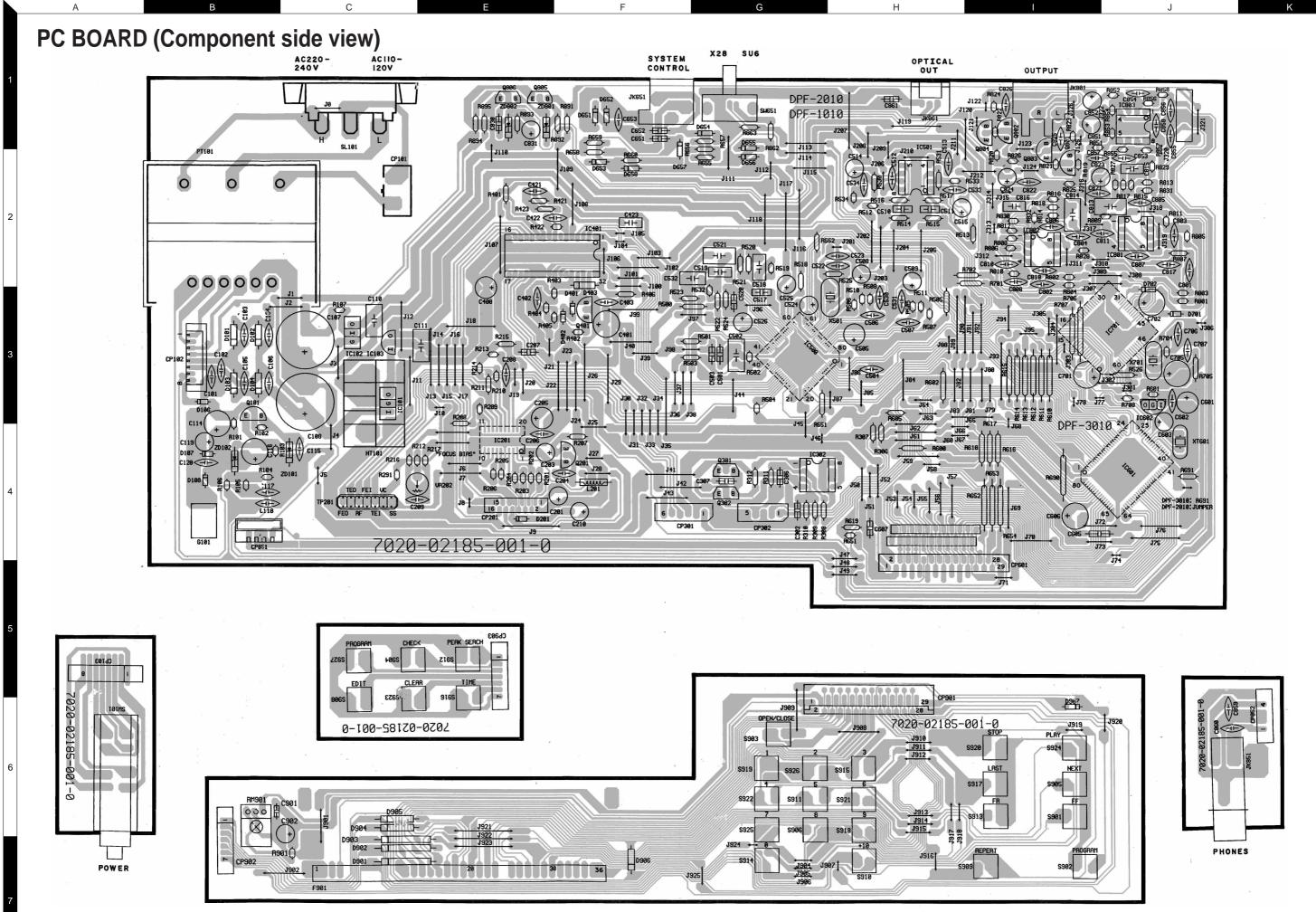
ADJUSTMENT

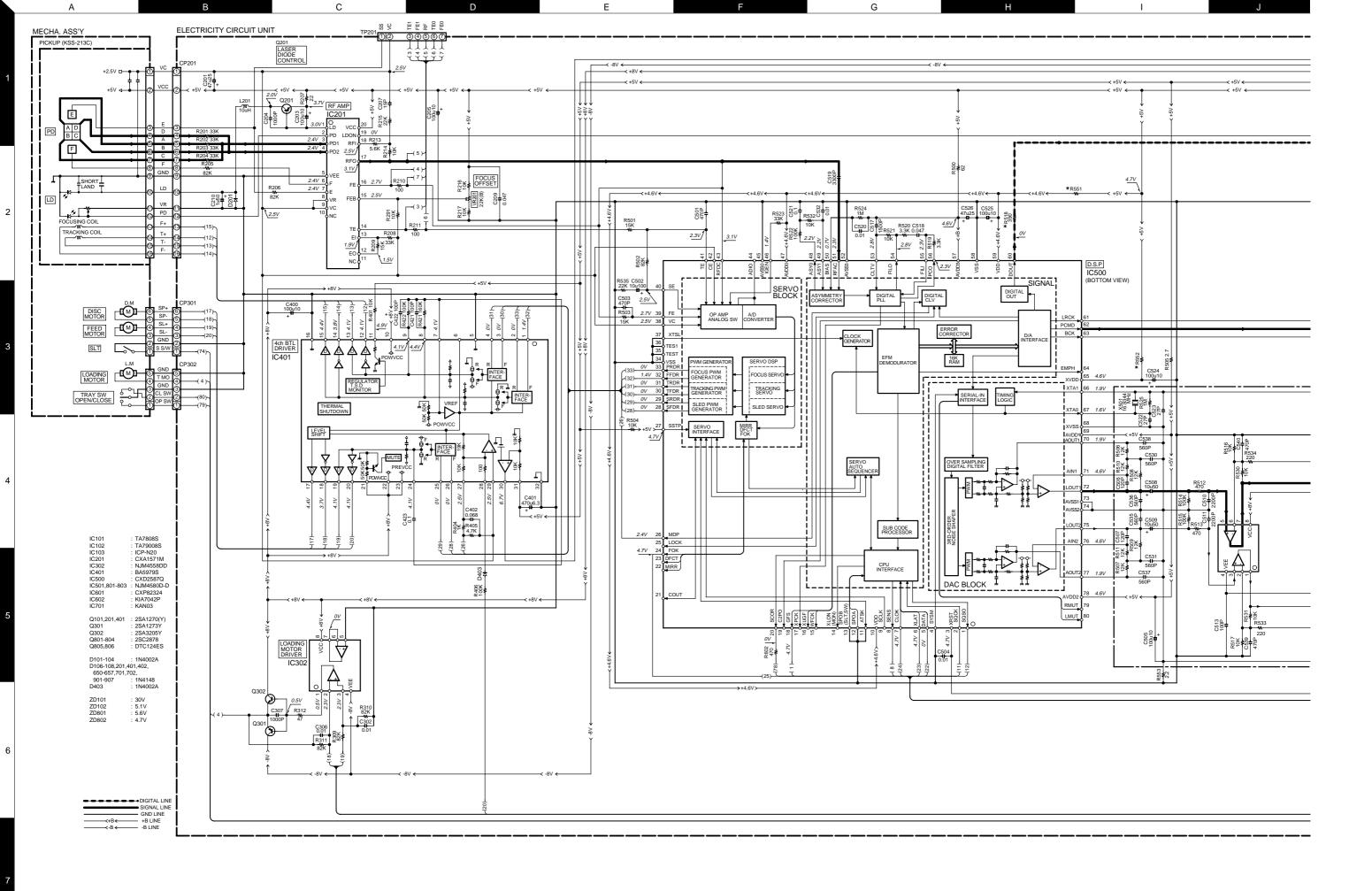
No.	ITEM	INPUT SETTING	OUTPUT PLAYER SETTING SETTING		ALIGNMENT POINT	ALIGN FOR	FIG.
SET	THE TEST D	ISC TO DISC NO	SONY YEDS-18. (T	YPE4)			
1	FOCUS OFFSET	TEST DISC TYPE 4	Connect an oscilloscope to TP201 RF (PIN 5) VC (PIN2)	PLAY	VR201	Optimum eye pattern	

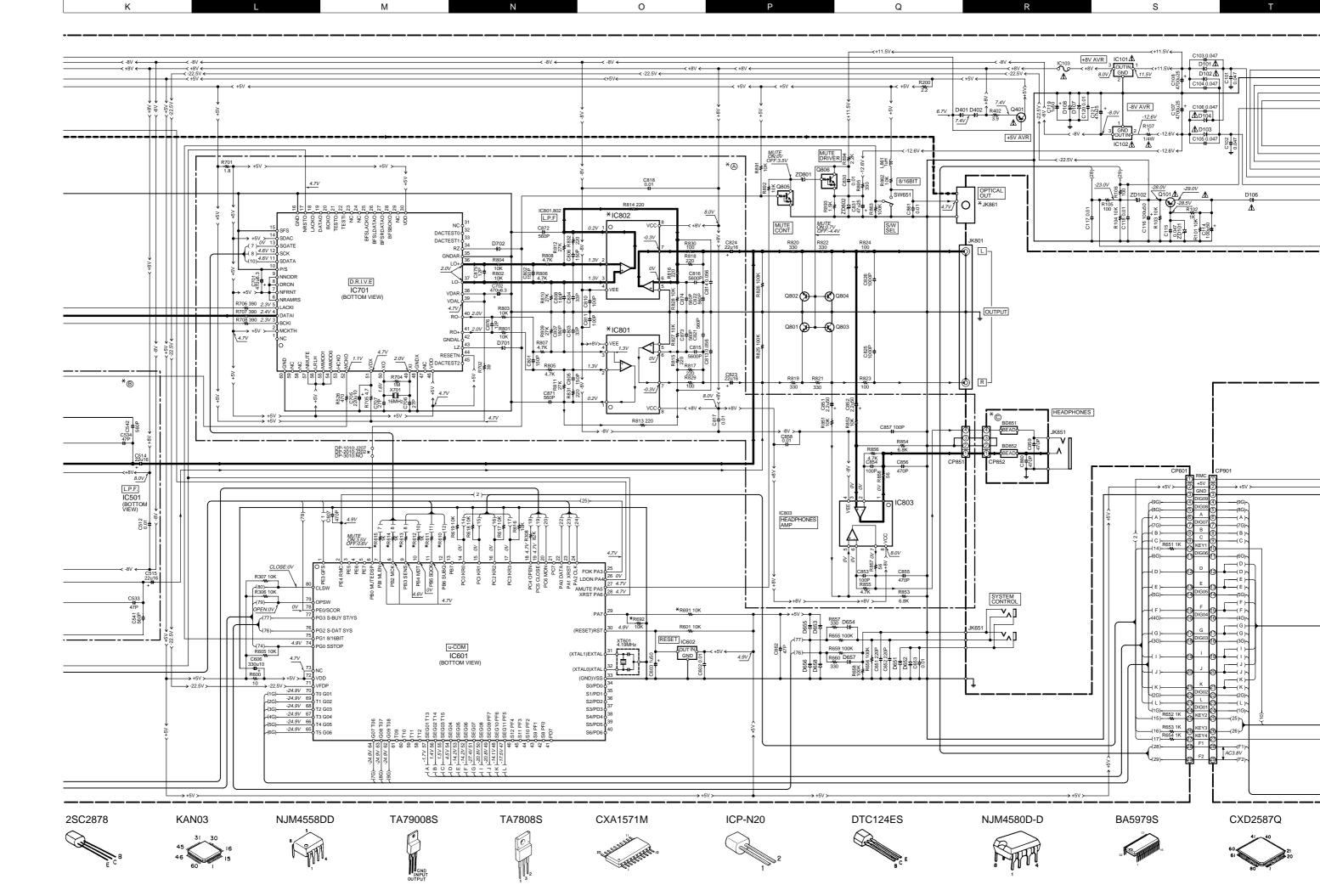
Note:

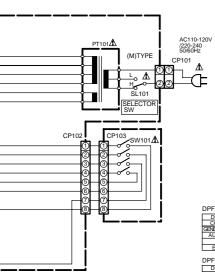
Type 4 disc : SONY YEDS-18 Test Disc or equivalent.

LPF: Around 47 k Ω + 390 pF or so.





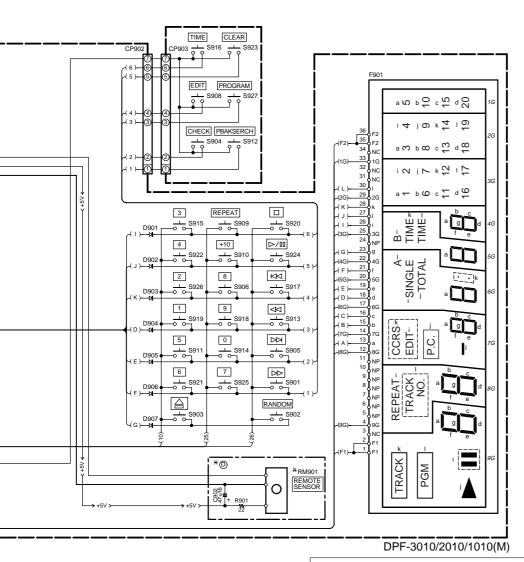




CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

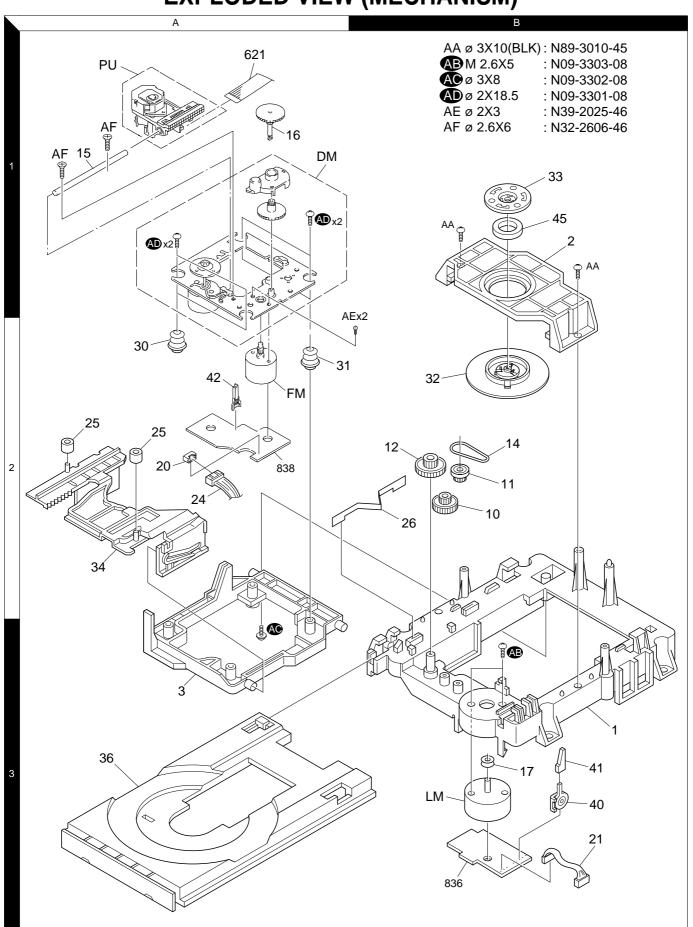
The DC voltage is an actual reading measured with a high impedance type voltmeter. The measurement value may vary depending on the measuring instruments used or on the product. Refer to the voltage during PLAY unless otherwise specified; The value shown in () is the voltage measured at the moment of STOP

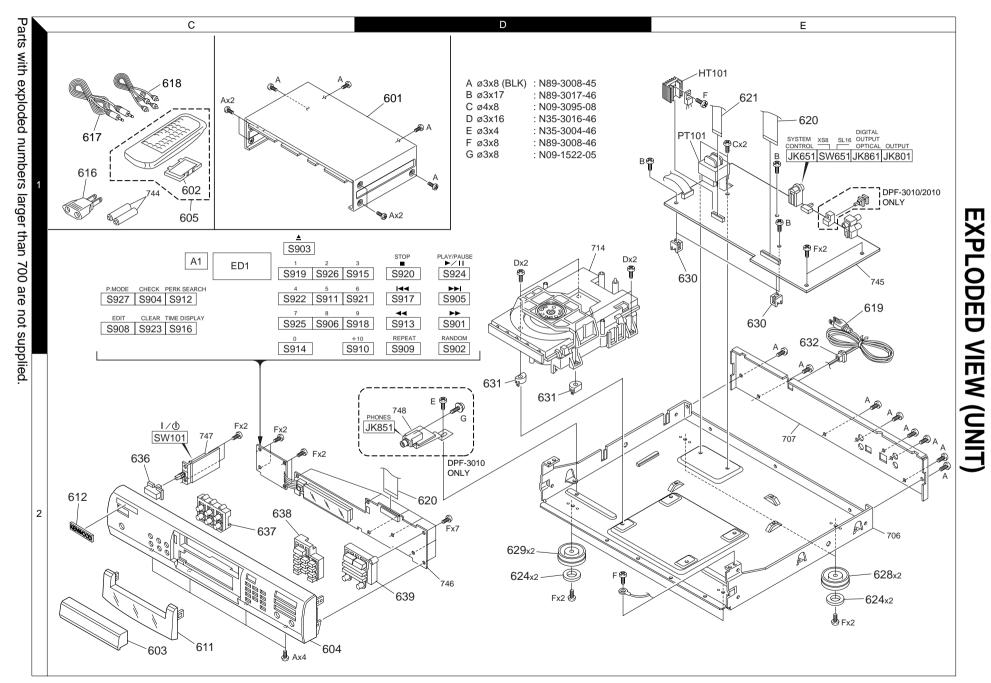
DPF-2010												
DESTINATION	ABB	R518, 692	R551	R552	R610, 611,613	R612, 614,615	R691	(A)(C)	B	(D)	JK861	J202, 207
COUNTRY GENERAL MARKET	M ABB	092			011,013	014,013		~ ~)	$\stackrel{\sim}{\rightarrow}$		201
AUSTRALIA	X	ł										
U.K.	Ť	YES	5.6	82	470	NO	NO	NO	Y	ES	YES	YES
EUROPE	Ė	i										
DPF-1010	J	D518	L		D610	D612			_			1202
	ABB.	R518, 691	R551	R552	R610, 611,613	R612, 614,615	R692	(A)(O)	❿	₿	JK861	207
GENERALMARKET	M											
AUSTRALIA	Х	NO		82	470	NO	YES	NO.		YES	NO	YES
U.K.	T	INO	5.6	82	4/0	NO	TES	I NO		TES	NO	1150
EUROPE	Е											
DPF-3010												
DESTINATION		R518,	R551	R552	R610, 611,613	R612, 614,615	R692	(A)(C)	M	B	JK861	J202, 207
	ABB.	691	11001	11002	611,613	614,615	11002	00	$\underline{}$	9	311001	207
JAPAN	J	YES		20	41/	YES	NO	YES		NO.	YES	
U.K. FUROPE	F	TES	2.2	39	1K	TES	NO	l YES		NO	TES	NO



DPF-1010/1010E/2010/2010E/3010/3010E

EXPLODED VIEW (MECHANISM)





8

Parts without **Parts No.** are not supplied.

Les articles non mentionnes dans le **Parts No.** ne sont pas fournis

Les articles Teile ohne F	non me Parts No	ntio	nnes dans le Parts No erden nicht geliefert.	o. ne sont pas fournis.		0				
Ref. No		New Parts	Parts No.	Description	Desti- nation	Re- marks				
DPF-1010/2010/3010										
601 602 603 604 604	1D 1C 2C 2C 2C 2C	* * *	A01-3356-08 A09-0356-08 A21-3697-08 A60-1488-08 A60-1489-08	METALLIC CABINET BATTERY COVER DRESSING PANEL PANEL DPF-3010 PANEL DPF-2010		3 2				
604 605	2C 1C	*	A60-1490-08 A70-1181-08	PANEL DPF-1010 REMOCON (RC-P0305)		1				
611 612 - -	2C 2C	* * *	B10-3413-08 B43-0302-04 B46-0310-03 B60-3730-08 B60-3731-08	FRONT GLASS KENWOOD BADGE WARRANTY CARD INST MANUAL ENGLISH INST MANUAL FRENCH/ITALIAN	ET TEMX E					
- - - -		* * *	B60-3732-08 B60-3733-08 B60-3734-08 H25-1601-08 550000017000	INST MANUAL DUTCH/GERMAN INST MANUAL SPANISH INST MANUAL TAIWANESE PROTECTION BAG (260X390) LABEL	E EM M					
-			550001593000	LABEL(LASER CAUTION)						
616 617 618 619 619	1C 1C 1C 1E 1E		E03-0115-05 E30-2733-05 E30-2841-08 E30-2872-08 E30-2873-08	AC PLUG ADAPTOR SYSTEM CONTROL CORD AUDIO CORD AC POWER CORD AC POWER CORD	M X EM					
619 620 621	1E 1E,1D 1E	* *	E30-2888-08 E35-2198-08 E35-2222-08	AC POWER CORD FLAT CABLE (29P) FLAT CABLE (16P)	Т					
- - - -		****	H10-7506-08 H25-1634-08 H50-2857-08 H50-2858-08 H50-2859-08	POLYSTYRENE FOAMED FIXTURE PROTECTION BAG (700X650) ITEM CARTON CASE 3010 ITEM CARTON CASE 2010	E T E	3 3 2				
- - - -		****	H50-2860-08 H50-2861-08 H50-2862-08 H50-2863-08 H50-2864-08	ITEM CARTON CASE 2010 ITEM CARTON CASE 2010 ITEM CARTON CASE 1010 ITEM CARTON CASE	TX M E TX M	2 2 1 1				
624 628 629 630 631	2D 2E 2D 1E 2D	*	G11-2265-08 J02-1166-08 J02-1421-08 J19-5725-08 J32-0340-08	FOOT(CUSHION) FOOT(ABS BK) FOOT(STAMPING) PCB SUPPORTER FOOT(MECHA)						
632	1E		J42-0200-08	POWER CORD BUSHING						
636 637 638 639	2C 2C 2C 2D	* * * *	K29-7372-08 K29-7373-08 K29-7374-08 K29-7375-08	KNOB(POWER) KNOB(FUNCTION) KNOB(10KEY) KNOB(PLAY)						
С			N09-3095-08	SCREW TAP TITE 4X8ZN						
			ELE	ECTRIC PARTS						
C100-106 C107,108			CK45FF1H473Z CE04KW1E471M	CERAMIC 0.047UF Z ELECTRO 470UF 25WV						

C107,108	CE04KV	/1E4/1M	ELECTRO	4/0UF	2	5WV			
L : Scandinavia	K:USA	P: Canada	R: Mexico	C: China		I : Malaysia			
Y: PX(Far East, Hawaii)	T: Europe	E: Europe	G: Germany	V: China(Shanghai)					
Y: AAFES(Europe)	X: Australia	Q: Russia	H: Korea	M: Other Areas	Δi	indicates safet	y critical com	ponents.	

* New Parts

Parts without **Parts No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

K:USA

T: Europe

X : Australia

P: Canada

E: Europe

Q:Russia

R: Mexico

H: Korea

C: China

G: Germany V: China(Shanghai)

I: Malaysia

M: Other Areas ⚠ indicates safety critical components.

L: Scandinavia

Y: AAFES(Europe)

Y: PX(Far East, Hawaii)

1,2 1,2 1,2 1,2
1,2 1,2 1.2
1,2
1,2 1,2 1,2
1,2 1,2
3 3

0

* New Parts

Parts without **Parts No.** are not supplied.

Les articles non mentionnes dans le **Parts No.** ne sont pas fournis. Teile ohne **Parts No.** werden nicht geliefert.

Ref. No	New Parts	Parts No.	D	Description			
C706,707 C801,802 C803,804 C805,806 C807,808		CC45FSL1H270J CC45FSL1H151J CC45FSL1H330J CC45FSL1H151J CC45FSL1H181J	CERAMIC CERAMIC CERAMIC CERAMIC CERAMIC	27PF 150PF 33PF 150PF 180PF	J J J	nation	3 3 3 3 3
C810,811 C813,814 C815,816 C817,818 C821,822		CC45FSL1H101J CQ92FM1H563J CQ92FM1H562J CK45FF1H103Z CC45FSL1H561J	CERAMIC MYLAR MYLAR CERAMIC CERAMIC	100PF 0.056UF 5600PF 0.010UF 560PF	J J Z J		3 3 3
C823,824 C825,826 C830 C831 C851,852		CE04KW1C220M CK45FF1H102K CK45FF1H103Z CE04KW1E470M CE04KW1H2R2M	ELECTRO CERAMIC CERAMIC ELECTRO ELECTRO	22UF 1000PF 0.010UF 47UF 2.2UF	16WV K Z 25WV 50WV		3
C853,854 C855,856 C857 C858 C859,860		CC45FSL1H101J CC45FSL1H471J CC45FSL1H101J CK45FF1H103Z CK45FB1H471K	CERAMIC CERAMIC CERAMIC CERAMIC CERAMIC	100PF 470PF 100PF 0.010UF 470PF	J J Z K		3 3 3 3 3
C861 C862 C871-874 C875,876 C902		CK14B1H103K CC45FSL1H470J CC45FSL1H561J CC45FSL1H120J CE04KW1C470M	CERAMIC AXIAL CERAMIC CERAMIC CERAMIC ELECTRO	0.010UF 47PF 560PF 12PF 47UF	K J J 16WV		3 3 2,3
D901-907		1N4148M	DIODE				
CP101 CP102 CP201 CP301 CP302	*	E35-1608-08 E35-1615-08 E40-8290-08 E35-1607-08 E35-1606-08	PIN ASSY PIN ASSY FLAT CABLE COM PIN ASSY PIN ASSY	2P 8P NNECTOR 1 6P 2.5M 5P 2.5M	M		
CP601 CP851 CP901 F901 JK651	*	E40-8291-08 E35-1605-08 E40-8301-08 CM1703C E11-0188-05	FLAT CABLE CON PIN ASSY FLAT CABLE CON INDICATOR TUBL MINIATURE PHOI	4P NNECTOR 2 J			
JK801 JK851 JK861 PT101 PT101	*	E63-0188-08 E11-0263-08 W02-2620-08 L07-2591-08 L07-2592-08	PHONO JACK PHONE JACK OPTICAL RECEIV POWER TRANSF POWER TRANSF	ORMER	E(OUTPUT)	TE M	3 2,3
PT101 TP201	*	L07-2593-08 E40-4876-05	POWER TRANSF	ORMER 7P		X	
BD851,852 L201 L861 X501 X701	* * *	L92-0056-08 L33-0574-08 L33-0537-08 L78-0687-08 L78-0687-08	CORE SMALL FIXED IND COIL FILTER IND CRYSTAL RESON CRYSTAL RESON	UCTOR IATOR 16.9:			3 1,2 3
XT601		L78-0209-05	RESONATOR CE	RAMIC			
R100 R107 R801-804 R805-808		RD14GB2E1R0J RD14GB2E1R0J RN14BK2C1002F RN14BK2C4701F	FL-PROOF RD FL-PROOF RD RN RN	1 1 10.0K 4.70K	J 1/4W J 1/4W F 1/6W F 1/6W		3 3

L: Scandinavia K:USA P: Canada Y: PX(Far East, Hawaii) T: Europe

Y: AAFES(Europe)

E: Europe X: Australia Q: Russia H: Korea

R: Mexico

C: China

G: Germany **V**: China(Shanghai)

M: Other Areas ⚠ indicates safety critical components.

* New Parts

Y: AAFES(Europe)

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0

Parts without **Parts No.** are not supplied.

Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.

	Teile ohne Parts No. werden nicht geliefert. Det No. Add- New Doub No. Desti-								
	Ref. No	Add- ress	Parts	Parts No.	Description	nation	Re- marks		
	R809-812 VR201		*	RN14BK2C2702F R39-0019-08	RN 27.0K F 1/6W VARIABLE RESISTOR 22KB		3		
<u>^</u>	S901-906 S908-927 SL101 SW101 SW651		* *	\$70-0059-08 \$70-0059-08 \$90-0123-08 \$68-0101-08 \$62-0069-08	TACT SWITCH TACT SWITCH SLIDE SWITCH PUSH SWITCH SELECT SW(SL XL)	М			
A	D101-104 D106-108 D201 D401-403 D651-658			1N4002A 1N4148M 1N4148M 1N4148M 1N4148M 1N4148M	DIODE DIODE DIODE DIODE DIODE				
⚠ ⚠				1N4148M TA7808S TA79008S ICP-N20 CXA1571M	DIODE IC(REGULATOR) IC(VOLTAGE REGULATOR/ -8V) IC(PROTECT) IC(CD RF AMP)		3		
	IC302 IC401 IC500 IC501 IC601			NJM4558DD BA5979S CXD2587Q NJM4580D-D CXP82324	IC(OP AMP X2) IC(4CH BTL) IC(DAC DSP) IC(OP AMP X2) IC		1,2		
◮	IC602 IC701 IC801-803 Q101 Q201			KIA7042P KAN03 NJM4580D-D 2SA1270(Y) 2SA1270(Y)	IC IC(1 bit DAC(DRIVE)) IC(OP AMP X2) TRANSISTOR TRANSISTOR		3		
Δ	Q301 Q302 Q401 Q801-804 Q805,806			KTA1273Y KTC3205Y 2SA1270(Y) 2SC2878 DTC124ES	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR				
	ZD101 ZD102 ZD801 ZD802			MTZJ30B MTZJ5.1B MTZJ5.6B MTZJ4.7B	ZENER DIODE ZENER DIODE ZENER DIODE ZENER DIODE				
	RM901		*	W02-2663-08	ELECTRIC CIRCUIT MODULE		2,3		
				MEC	CHANISM ASSY				
	1 2 3	3B 1B 3A		A10-3405-08 A15-0090-08 A13-3114-08	MECHA BASE FLAPPER FRAME FEED				
	10 11 12 14 15	2B 2B 2B 2B 1A		D13-1754-08 D13-1753-08 D13-1755-08 D16-0703-08 D10-3606-08	GEAR CENTER GEAR PULLEY GEAR LOAD BELT ROD (GUIDE)				
	16	1A		D13-1720-08	GEAR (DRIVING)				
	20 21 24	2A 3B 2A	*	E40-3264-05 E35-2224-08 E35-2223-08	CONNECTOR S6B-PH WIRE HARNES 5P WIRE HARNES 6P				
	25	2A		F07-0783-08	RUBBER STOPPER				
	L : Scandinavia Y : PX(Far East,	Hawaii)		USA P: Canada Europe E: Europe	R: Mexico C: China I: Malaysia G: Germany V: China(Shanghai)	55 1			

PARTS LIST / SPECIFICATIONS

indicates safety critical components

Desti- Re- nation marks							
Description	SPRING RACK	INSULATOR(4B,GREEN) INSULATOR(30,RED) CLAMPER PLATE CLAMPER GUIDE FRAME	TRAY HOLDER S/W	SCREW SCREW WPH 3X8 SCREW	SWITCH LEAF LEAF SWITCH		PULLEY MOTOR MAGNET CORE DISC MOTOR ASSY FEED MOTOR ASSY MOTOR, DC
New Parts No.	G09-0657-08	G11-2367-08 G11-2368-08 J11-0829-08 J21-6409-08 J90-0853-08	J99-0600-08 J31-0874-08	N09-3303-08 N09-3302-08 N09-3301-08	S74-0068-08 S74-0038-08	0000	D15-0395-08 T99-0579-08 A11-1082-18 T42-0817-08 T42-0855-08
Add- Ne ress Pa	2B	28 28 29 29 29	3A 3B		3B 2A		38 A A B B
Ref. No	26	30 32 33 34	36 41	A A A	40 42		17 45 DM FM LM

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[Audio] (for DPF-2010/1010)

ABBREVIATION OF MODEL AND MASS PRODUCTION'S DESTINATIONS MODEL ABB Australe Canada China England Europe Germany Kreea Morea DPF-2010 2 X T E DPF-3010 3 X T E DPF-1010 1 ABB Mexico PX/AAFES Russia Scandinavia Shanghal USA Other area DPF-2010 1 M M

Specifications

[Format]
SystemCompact disc digital audio system
LaserSemiconductor laser
[D/A Convertors]
D/A Conversion1 Bit
Oversampling 8 fs (352.8 kHz)
[Audio] (for DPF-3010)
Frequency response 4 Hz ~ 20 kHz, ±0.5 dB
Signal to noise ratio More than 100 dB
Dynamic range More than 95 dB
Total harmonic distortion + noise Less than 0.006% (at 1 kHz)
Channel separation More than 95 dB (at 1 kHz)
Wow & flutterUnmeasurable Limit
Output level/impedance
Variable (Max.) 2.0 V/0.8 kΩ
Digital output
Optical15 dBm21 dBm
(Wave length 660 nm)
Headphone output (Max.) 20 mW (32 Ω)

Signal to noise rat	io More than 94 dB
Dynamic range	More than 92 dB
Total harmonic dis	stortion + noise Less than 0.007% (at 1 kHz)
Channel separatio	n More than 90 dB (at 1 kHz)
Wow & flutter	Unmeasurable Limit
Output level/impe	dance
Variable	(only DPF-2010) (Max.) 2.0 V/0.8 $k\Omega$
Fixed	(only DPF-1010)2.0 V/0.8 $k\Omega$
Digital output	(only DPF-2010)
Optical	15 dBm21 dBm
	(Wave length 660 nm)
[General]	
Power consumption	
Australia, Euro	pe and U.K12 W
Other countrie	s14 W
Dimensions	W : 440 mm (17-5/16")

Weight (Net) 4.3 kg (9.5 lb)

H: 95 mm (3-3/4") D: 370 mm (14-9/16")

Frequency response 6 Hz ~ 20 kHz, ± 0.5 dB



- $1.\ KENWOOD\ follows\ a\ policy\ of\ continuous\ advancements\ in\ development.\ For\ this\ reason\ specifications\ may\ be\ changed\ without\ notice.$
- 2. The full performance may not be exhibited in an extremely cold location (under a water-freezing temperature).

Note:

Component and circuit are subject to modification to insure best operation under differing local conditions. This manual is based on Europe (E) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

KENWOOD CORPORATION

14-6,Dogenzaka 1-chome, Shibuya-ku, Tokyo, 150-8501 Japan

KENWOOD SERVICE CORPORATION

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